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| Application Number | 10/727,064 |
| Filing Date | 12/2/2003 |
| First Named Inventor | Saqib |
| Art Unit | 2681 |
| Examiner Name | |
| Attorney Docket Number | UTDA:1093 |

U.S. PATENT DOCUMENTS

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| Examiner Signature | /Robert Root/ | Date Considered | 05/29/2008 |
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Sheet

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Complete If Known

Application Number 10/727,064

Filing Date 12/2/2003

First Named Inventor Saquib

Art Unit 2681

Examiner Name

Attorney Docket Number UTDA:1093

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published. | T ² |
|--------------------|----------|--|----------------|
| | | J. M. WOZENCRAFT AND M. HORSTEIN, "Coding for Two-Way Channels," Fourth London Symp. Information Theory, London, Sept. 1960. | |
| | | S. WICKER, "High-reliability data transfer over the land mobile radio channel using interleaved hybrid-ARQ error control," IEEE Trans. on Vehicular Technology., vol. 39, no. 1, pp. 48-55, Feb. 1990. | |
| | | S. WICKER, "Reed-Solomon error control coding for Rayleigh fading channels with feedback," IEEE Trans. on Vehicular Technology., vol. 41, no. 2, pp. 124-133, May 1992. | |
| | | M. RICE, "Application of generalized minimum distance decoding to hybrid-ARQ error control," IEEE Trans. on Commun., vol. 42, no. 2/3/4, pp. 640-647, Feb.-Apr. 1994. | |
| | | A.-G. DARAISEH AND C. BAUM, "Exact performance analysis of linear block codes in frequency-hop spread spectrum communication systems," IEEE Trans. on Information Theory, vol. 43, no. 6, pp. 1993 - 1999, Nov. 1997. | |
| | | A. DRUKAREV AND J. COSTELLO, D., "Hybrid ARQ error control using sequential decoding," IEEE Trans. on Information Theory, vol. 29, no. 4, pp. 521 - 535, Jul. 1983. | |
| | | H. YAMAMOTO AND K. ITOH, "Viterbi decoding algorithm for convolutional codes with repeat request," IEEE Trans. on Information Theory, vol. 26, no. 5, pp. 540 - 547, Sep. 1980. | |
| | | S. RASMUSSEN, L.K.; WICKER, "The performance of type-I trellis coded hybrid-ARQ protocols over AWGN and slowly fading channels," IEEE Trans. on Information Theory, vol. 40, no. 2, pp. 418 - 428, Mar. 1994. | |
| | | S. B. WICKER, "An Adaptive Type-I Hybrid-ARQ Technique Using the Viterbi Algorithm," in Proceedings of IEEE Military Communications Conference, San Diego, CA, USA, October 1988, pp. 15.5.1-15.5.5. | |
| | | B. A. HARVEY AND S. B. WICKER, "Error-Trapping Hybrid Viterbi Decoding in Type-I Hybrid-ARQ Protocols," in Proceedings of IEEE International Conference on Communications, SUPERCOMM/ICC'90, Atlanta, Georgia, USA, April 1990, pp. 1265-1270. | |
| | | A. R. RAGHAVAN AND C. W. BAUM, "A Reliability Output Viterbi Algorithm with Applications to Hybrid ARQ," IEEE Transactions on Information Theory, vol. 44, no. 3, pp. 1214-1216, May 1998. | |
| | | P. SINDHU, "Retransmission Error Control with Memory," IEEE Transactions on Communications, vol. COM-25, no. 5, pp. 473-479, May 1977. | |
| | | D. CHASE, "Code Combining-A Maximum-Likelihood Decoding Approach for Combining an Arbitrary Number of Noisy Packets," IEEE Transactions on Communications, vol. COM-33, no. 5, pp. 385-393, May 1985. | |

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| Substitute for form 1449B/PTO | | Complete if Known | |
| | | Application Number | 10/727,964 |
| | | Filing Date | 12/2/2003 |
| | | First Named Inventor | Saquist |
| | | Art Unit | 2681 |
| | | Examiner Name | |
| Sheet | 3 | of | 7 |
| | | Attorney Docket Number | UTDA:1093 |

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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| NON PATENT LITERATURE DOCUMENTS | | | |
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| Examiner Initials ¹ | Cite No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| | | S. LIN AND P. S. YU, "A Hybrid-ARQ Scheme with Parity Retransmission for Error Control for Satellite Channels," IEEE Transactions on Communications, vol. COM-30, no. 7, pp. 1701-1719, July 1982. | |
| | | M. B. PURSLEY AND S. D. SANDBERG, "Incremental-Redundancy Transmission for Meteor-Burst Communications," IEEE Transactions on Communications, vol. 39, no. 5, pp. 689-702, May 1991. | |
| | | S. B. WICKER AND M. BARTZ, "Type-II Hybrid-ARQ Protocols Using Punctured MDS Codes," IEEE Transactions on Communications, vol. 42, no. 2, pp. 1431-1440, April 1994. | |
| | | J. HAGENAUER, "Rate-compatible punctured convolutional codes (RCP codes) and their applications," IEEE Trans. on Commun., vol. 36, no. 4, pp. 389 - 400, April 1988. | |
| | | Y. M. WANG AND S. LIN, "A Modified Selective Repeat Type-II Hybrid ARQ System and its Performance Analysis," IEEE Transactions on Communications, vol. 31, no. 5, pp. 593-608, May 1983. | |
| | | S. KALLEL, "Analysis of a Type II Hybrid ARQ Scheme with Code Combining," IEEE Transactions on Communications, vol. 38, no. 8, pp. 1133-1137, August 1990. | |
| | | J. B. CAIN, G. C. CLARK, and J. M. GEIST, "Punctured Convolutional Codes of Rate (n-1)/n and Simplified Maximum Likelihood Decoding," IEEE Transactions on Information Theory, vol. IT-24, no. 1, pp. 97-100, January 1979. | |
| | | Y. YASUDA, K. KASHIKI, and Y. HIRATA, "High Rate Punctured Convolutional Codes for Soft Decision Viterbi Decoding," IEEE Transactions on Communications, vol. COM-32, no. 3, pp. 315-319, March 1984. | |
| | | S. KALLEL AND D. HACCOUN, "Generalized Type II Hybrid ARQ Scheme Using Punctured Convolutional Coding," IEEE Transactions on Communications, vol. 38, no. 11, pp. 1938-1946, November 1990. | |
| | | S. KALLEL, "Efficient Hybrid ARQ Protocols with Adaptive Forward Error Corrections," IEEE Transactions on Communications, vol. 42, no. 2, pp. 281-289, February 1994. | |
| | | Q. ZHANG AND S. A. KASSAM, "Hybrid ARQ with Selective Combining for Fading Channels," IEEE Journal on Selected Areas in Communications, vol. 17, no. 5, pp. 867-880, May 1999. | |
| | | E. MALKAMAKI AND H. LEIB, "Performance of Truncated Type-II Hybrid ARQ Schemes with Noisy Feedback over Block Fading Channels," IEEE Transactions on Communications, vol. 48, no. 9, pp. 1477-1487, September 2000. | |
| | | G. CAIRE AND D. TUNINETTI, "The Throughput of Hybrid-ARQ Protocols for the Gaussian Collision Channel," IEEE Transactions on Information Theory, vol. 47, no. 5, pp. 1971-1988, July 2001. | |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | Application Number | 10/727,064 |
| | | Filing Date | 12/2/2003 |
| | | First named Inventor | Saquist |
| | | Art Unit | 2681 |
| | | Examiner Name | |
| (Use as many sheets as necessary) | | Attorney Docket Number | UTDA:1093 |
| Sheet | 4 | of | 7 |

| NON PATENT LITERATURE DOCUMENTS | | | |
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| | | S. KALLEL, "Complementary Punctured Convolutional (CPC) Codes and their Applications," IEEE Transactions on Communications, vol. 43, no. 6, pp. 2005-2009, June 1995. | |
| | | H. LOU and A. S. CHEUNG, "Performance of Punctured Channel Codes with ARQ for Multimedia Transmission in Rayleigh Fading Channels," in Proceedings of IEEE Vehicular Technology Conference, vol. 46, May 1996, pp. 282-286. | |
| | | H. LIU and M. E. ZARKI, "Performance of H.263 Video Retransmission over Wireless Channels Using Hybrid ARQ," IEEE Journal in Selected Areas in Communications, vol. 15, no. 9, pp. 1775-1786, December 1997. | |
| | | E. MALKAMAKI and H. LEIB, "Rate 1/n Convolutional Codes with Interleaving Depth of n over a Block Fading Rician Channel," in Proceedings of 47th International Vehicular Technology Conference, Phoenix, Arizona, USA, May 1997, pp. 2002-2006. | |
| | | E. MALKAMAKI and H. LEIB, "Type-II Hybrid ARQ with Convolutional Codes over Block Rayleigh Fading Channel," in Proceedings of IEEE Personal, Indoor and Mobile Radio Communications Conference, Helsinki, Finland, 1997, pp. 1191-1195. | |
| | | S. CHOI and K. G. SHIN, "A Class of Adaptive Hybrid ARQ Schemes for Wireless Links," IEEE Transactions on Vehicular Technology, vol. 50, no. 3, pp. 777-790, May 2001. | |
| | | C.-L. I and R. D. GITLIN, "Multi-code CDMA Wireless Personal Communications Networks," in Proceedings of IEEE International Conference on Communications, vol. 2, Seattle, WA, June 18-22 1995, pp. 1060-1064. | |
| | | I. CHIH-LIN and R. D. GITLIN, "A profile-based location strategy and its performance," IEEE J. Select. Areas Commun., vol. 15, pp. 1415-1424, Oct. 1997. | |
| | | D. AYYAGARI and A. EPHREMIDES, "Cellular multicode CDMA capacity for integrated (voice and data) services," IEEE J. Select. Areas Commun., vol. 17, no. 5, pp. 928-938, May 1999. | |
| | | J. CHEN, J. WANG, and M. SAWAHASHI, "MCI cancellation for multicode wideband CDMA systems," IEEE J. Select. Areas Commun., vol. 20, no. 3, pp. 450-462, Feb. 2002. | |
| | | Z. WANG and G. GIANNAKIS, "Wireless multicarrier communications," IEEE Signal Processing Magazine, pp. 29-48, May 2000. | |
| | | D. I. KIM and K. H. PARK, "A hybrid nonlinear distortion compensator for multicode DS/CDMA systems," in Proc. of IEEE International Conference on Universal Personal Communications, vol. 2, Oct. 1998, pp. 1087-1091. | |

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| | | First Named Inventor | Saquist |
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| | | Z. GUO and K. B. LETAIEF, "Performance of VSG-CDMA and MC-CDMA in multirate systems," in Proc. of IEEE Vehicular Technology Conference, vol. 1, May 2001, pp. 501-505. | |
| | | G. WORNELL, "Spread Signature CDMA: Efficient Multiuser Communication in the Presence of Fading," IEEE Transaction on Information Theory, vol. 41, no. 5, pp. 1418-1438, September 1995. | |
| | | S. BHASHYAM, A. SAYEED, and B. AAZHANG, "Time-selective signaling and reception for communication over multipath fading channels," IEEE Trans. on Commun., vol. 48, no. 1, pp. 83-94, Jan. 2000. | |
| | | S. ZHOU, G. B. GIANNAKIS, and C. L. MARTRET, "Chip-Interleaved Block-Spread Code Division Multiple Access," IEEE Trans. on Commun., vol. 50, no. 2, pp. 235-248, Feb. 2002. | |
| | | G. GIANNAKIS, Z. WANG, A. SCAGLIONE, and S. BARBAROSSA, "AMOUR - Generalized multicarrier transceivers for blind CDMA regardless of multipath," IEEE Trans. on Commun., vol. 48, pp. 2064-2074, Dec. 2000. | |
| | | G. LEUS and M. MOONEN, "MUI-free receiver for a synchronous DS-SS-CDMA system based on block spreading in the presence of frequency-selective fading," IEEE Trans. on Signal Processing., vol. 48, pp. 3175-3188, Nov. 2000. | |
| | | G. LEUS and M. MOONEN, "MUI-free receiver for a shift-orthogonal quasi-synchronous DS-SS-CDMA system based on block spreading in frequency-selective fading," in IEEE International Conference on Speech and Signal Processing, June 2000, pp. 2497-2500. | |
| | | J. Y. N. HUI, "Throughput Analysis for Code Division Multiple Accessing of the Spread Spectrum Channel," IEEE Journal in Selected Areas in Communications, vol. SAC-2, pp. 482-486, July 1984. | |
| | | V. V. VEERAVALLI and A. MANTRAVADI, "The Coding-Spreading Tradeoff in CDMA Systems," IEEE Journal in Selected Areas in Communications, vol. 20, no. 2, pp. 396-408, February 2002. | |
| | | S. VERDU and S. SHAMAI, "Spectral Efficiency of CDMA with Random Spreading," IEEE Transactions on Information Theory, vol. 45, pp. 622-640, March 1999. | |
| | | Z. XIE, R. T. SHORT, and RUSHFORTH, "A Family of Sub-optimum Detectors for Coherent Multiuser Communications," IEEE Journal on Selected Areas in Communications, vol. 8, no. 4, pp. 683-690, March 1990. | |
| | | U. MADHOW and M. L. HONIG, "MMSE Interference Suppression for Direct-Sequence Spread-Spectrum CDMA," IEEE Transactions on Communications, vol. 42, no. 12, pp. 3178-3188, December 1994. | |
| | | 3GPP-TSG-RAN-WG4; UTRA (BS) TDD; Radio Transmission and Reception, Dec. 1999, available: www.etsi.org/umts. | |
| | | J. B. CAIN, G. C. CLARK, and J. M. GEIST, "Punctured convolutional codes of rate(n-1)/n and simplified maximum likelihood decoding," IEEE Trans. on Inform. Theory., vol. 25, pp. 97-100, Jan 1979. | |

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| First Named Inventor | Saqib |
| Art Unit | 2681 |
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|--------------------|----------|---|----------------|
| | | D. RAMAKRISHNA, N. MANDAYAM, and R. YATES, "Subspace Based Estimation of the Signal-to-Interference Ratio for CDMA Cellular Systems," IEEE Transactions on Vehicular Technology, vol. 49, no. 5, pp. 1732-1742, March 2000. | |
| | | R. K. MORROW, JR., and J. S. Lehnert, "Bit-to-Bit Dependence in DS/SSMA Packet Systems with Random Signature Sequences," IEEE Transactions on Communications, vol. 37, no. 1, pp. 1052-1061, October 1989. | |
| | | M. Z. WIN and J. H. WINTERS, "Analysis of hybrid selection/maximal-ratio combining in Rayleigh fading," IEEE Transactions on Communications, vol. 47, no. 12, pp. 1773-1776, Dec. 1999. | |
| | | C. L. WEBER, G. K. HUTH, and D. H. BATSON, "Performance Considerations of Code Division Multiple Access Systems," IEEE Transactions on Vehicular Technology, vol. VT-30, pp. 3-9, February 1981. | |
| | | T. HATTORI and K. HIRADE, "Multitransmitter simulcast digital signal transmission by using frequency offset frequency system in land mobile radio telephone system," IEEE Trans. Veh. Technol., vol. VT-27, pp. 231-238, 1978. | |
| | | A. HIROKE, F. ADACHI, and N. NAKAJIMA, "Combined effects of phase sweeping transmitter diversity and channel coding," IEEE Trans. Veh. Technol., vol. 41, pp. 170-176, May 1992. | |
| | | W.-Y. KUO and M. P. FITZ, "Design and analysis of transmitter diversity using intentional frequency offset for wireless communications," IEEE Trans. Veh. Technol., vol. 46, pp. 871-881, Nov. 1997. | |
| | | C. D'AMOURS, M. MOHER, and A. YONGALOGU, "Comparison of pilot symbol-assisted and differentially detected BPSK for DS-CDMA systems employing RAKE receivers in Rayleigh fading channels," IEEE Trans. on Veh. Technol., vol. 47, pp. 1258-1267, November 1998. | |
| | | Z. GUO and K. LETAIEF, "Robust joint channel estimation and multiuser detection with differential modulation in DS/CDMA systems," in Proceedings of the 53rd IEEE Vehicular Technology Conference, vol. 3, spring 2001, pp. 1765-1769. | |
| | | R. WEBER, "Simplified statistical replacement models for channel estimation in WCDMA," in Proceedings of the 12th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, vol. 1, September 2001, pp. D-38-D-42. | |
| | | G. CORAZZA and R. DE GAUDENZI, "Pilot-aided coherent uplink for mobile satellite CDMA networks," IEEE Trans. on Commun., vol. 47, pp. 773-783, May 1999. | |
| | | G. CHEN, X.-H. YU, and J. WANG, "Adaptive channel estimation and dedicated pilot power adjustment based on the fading-rate measurement for a pilot-aided CDMA system," IEEE Trans. on Commun., vol. 19, pp. 132-140, January 2001. | |
| | | R. FANTACCI and A. GALLIGANI, "An efficient RAKE receiver architecture with pilot signal cancellation for downlink communications in DS-CDMA indoor wireless networks," IEEE Trans. on Commun., vol. 47, pp. 823-827, June 1999. | |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | Application Number | 10/727,064 |
| | | Filing Date | 12/2/2003 |
| | | First Named Inventor | Saqib |
| | | Art Unit | 2681 |
| | | Examiner Name | |
| (Use as many sheets as necessary) | | Attorney Docket Number | UTDA:1093 |
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| | | G. D. F. JR., "Burst-correcting Codes for the Classic Bursty Channel," IEEE Transactions on Communications, vol. 19, pp. 772-781, October 1971. | |
| | | V. TAROKH, N. SESHADRI, and A. CALDERBANK, "Space-Time Codes for High Data Rate Wireless Communication: Performance Criterion and Code Construction," IEEE Transactions on Information Theory, vol. 44, no. 2, pp. 744-765, March 1998. | |
| | | K. FAZEL and S. KAISER, "Analysis of non-linear distortions on MC-CDMA," in Proceedings of the 12th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications, vol. 2, 7-11, June 1998, pp. 1028 - 1034. | |
| | | W. G. JEON, K. H. CHANG, and Y. S. CHO, "An adaptive data predistorter for compensation of nonlinear distortion in OFDM systems," IEEE Trans. on Commun., vol. 45, pp. 1167 - 1171, Oct 1997. | |
| | | N. GUO and L. B. MILSTEIN, "Uplink performance evaluation of multicode DS/CDMA systems in the presence of nonlinear distortions," IEEE Trans. on Selected Areas in Communications, vol. 18, pp. 1418 - 1428, Aug 2000. | |
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